APPENDIX B

Training Materials

APPENDIX B-1

NDZ Maps, Brochures and Poster

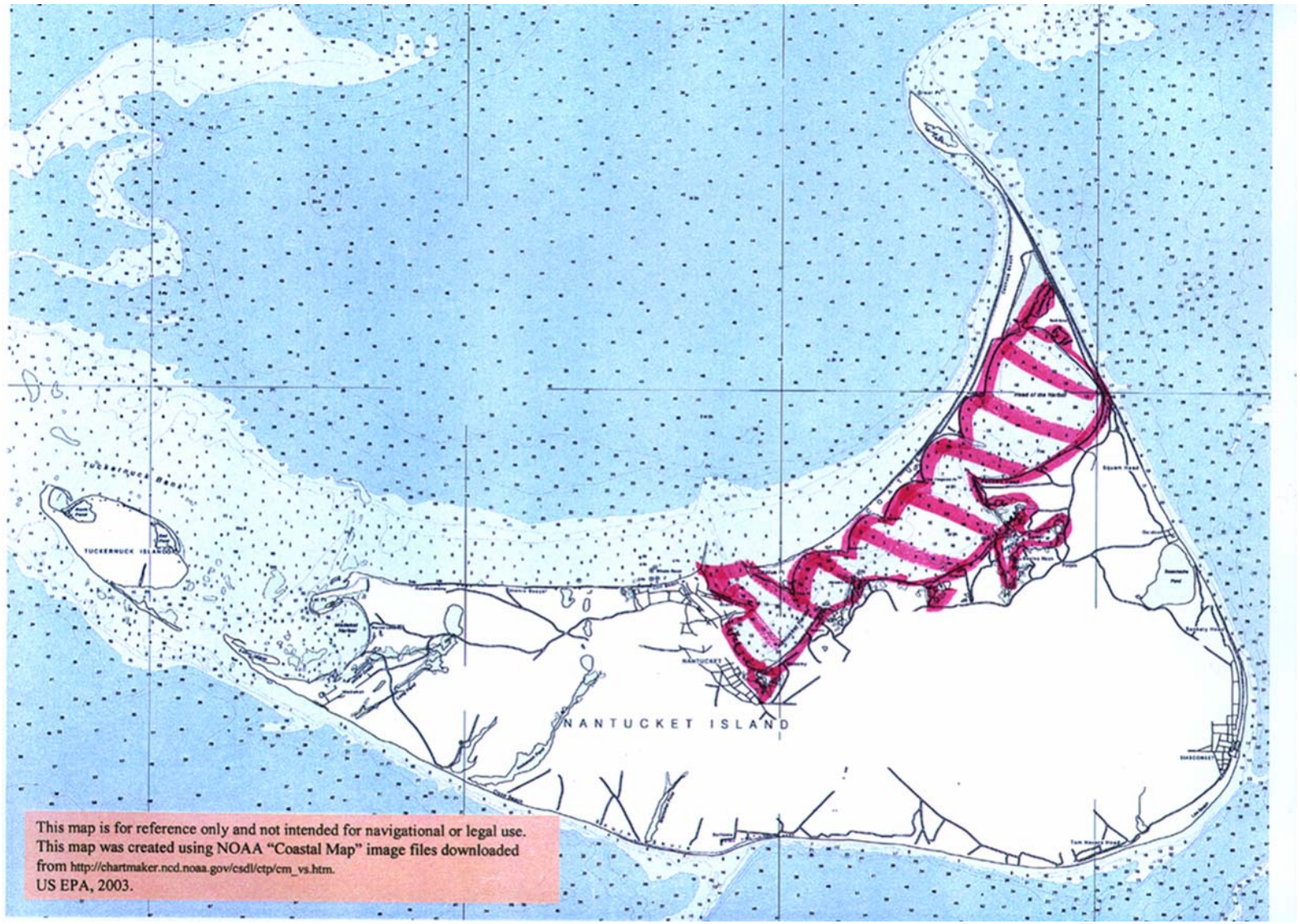


Figure B-1. Nantucket Harbor, MA (9/25/1992)

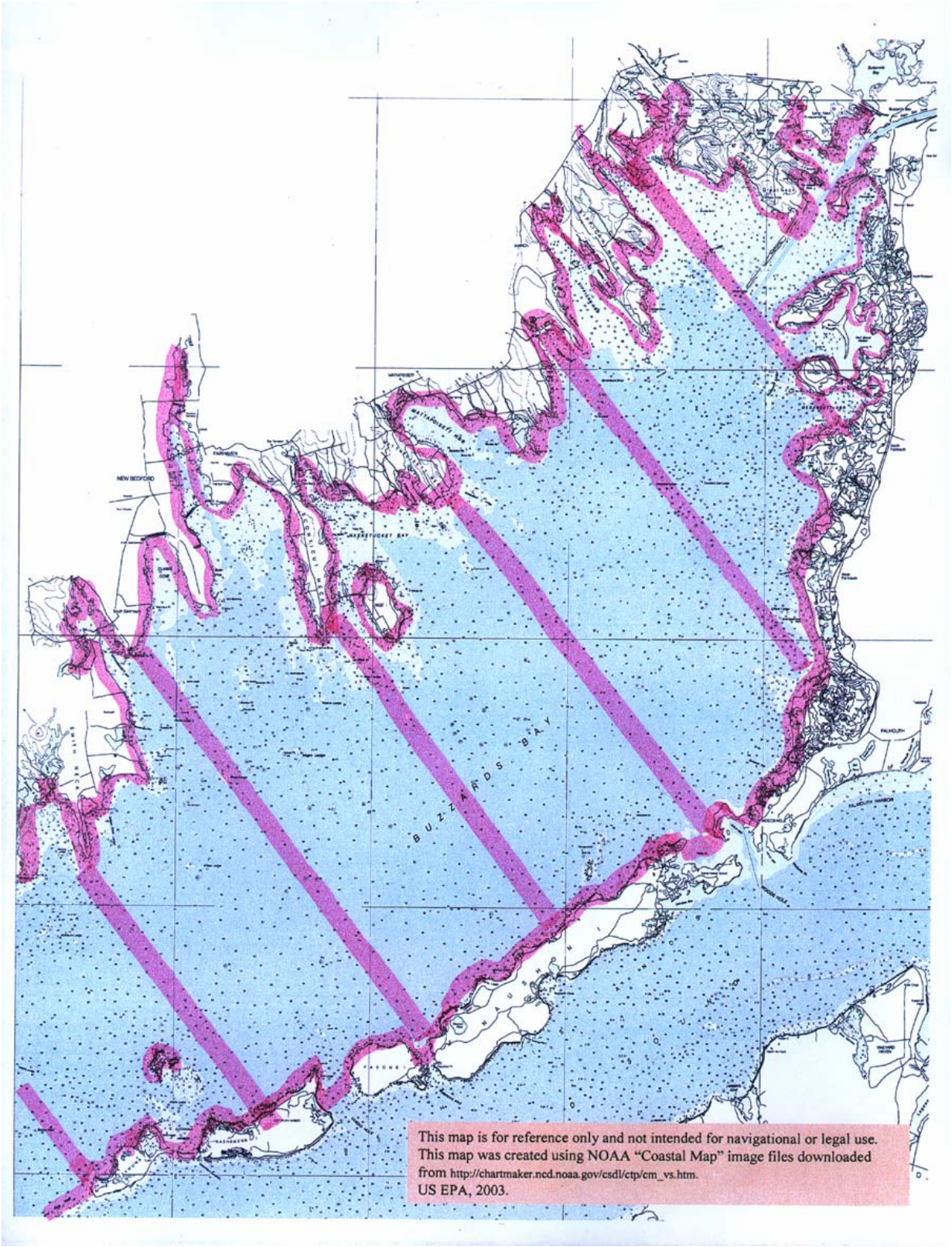


Figure B-2. Buzzards Bay, MA (7/31/2000)

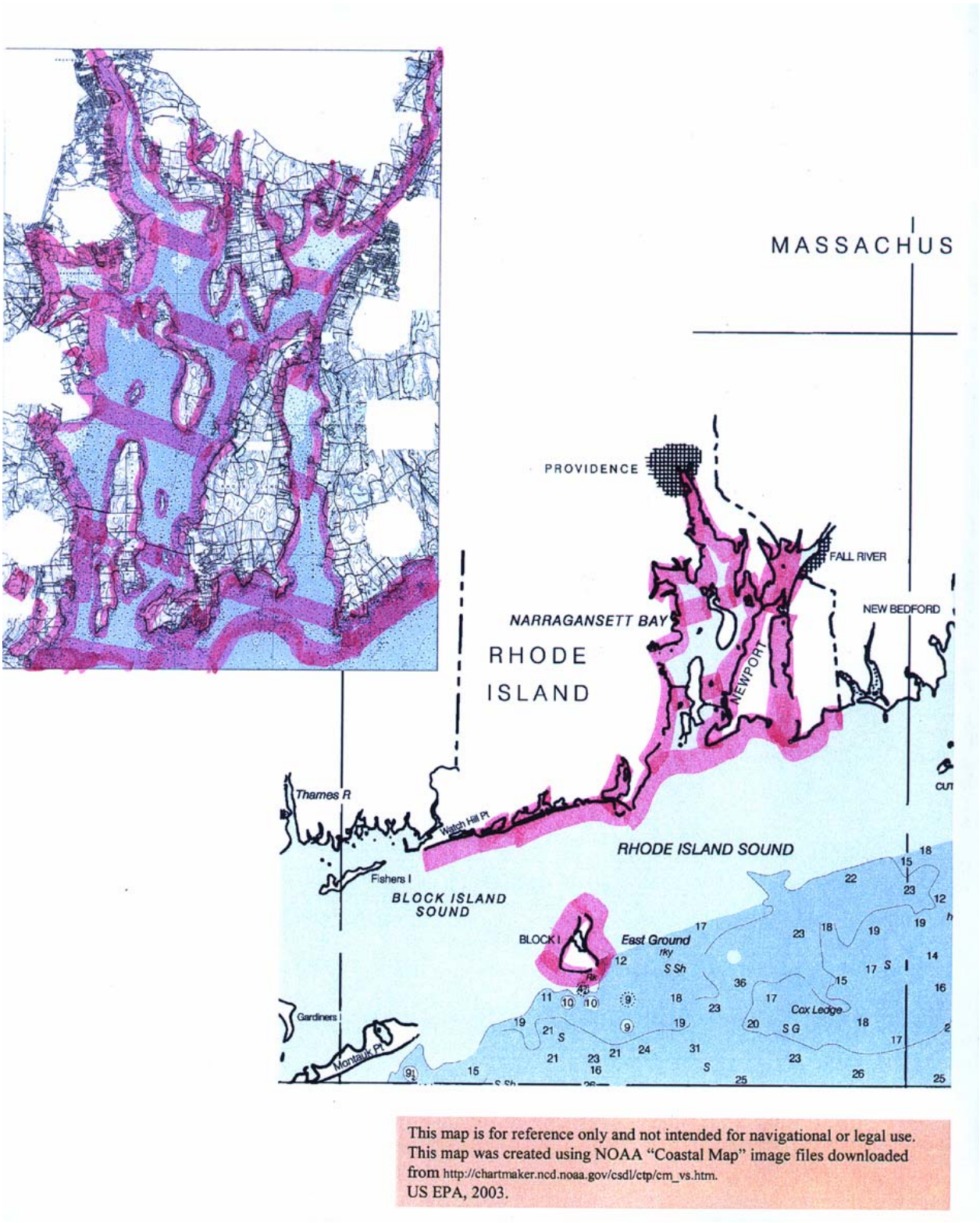


Figure B-3. Rhode Island (8/10/1998)

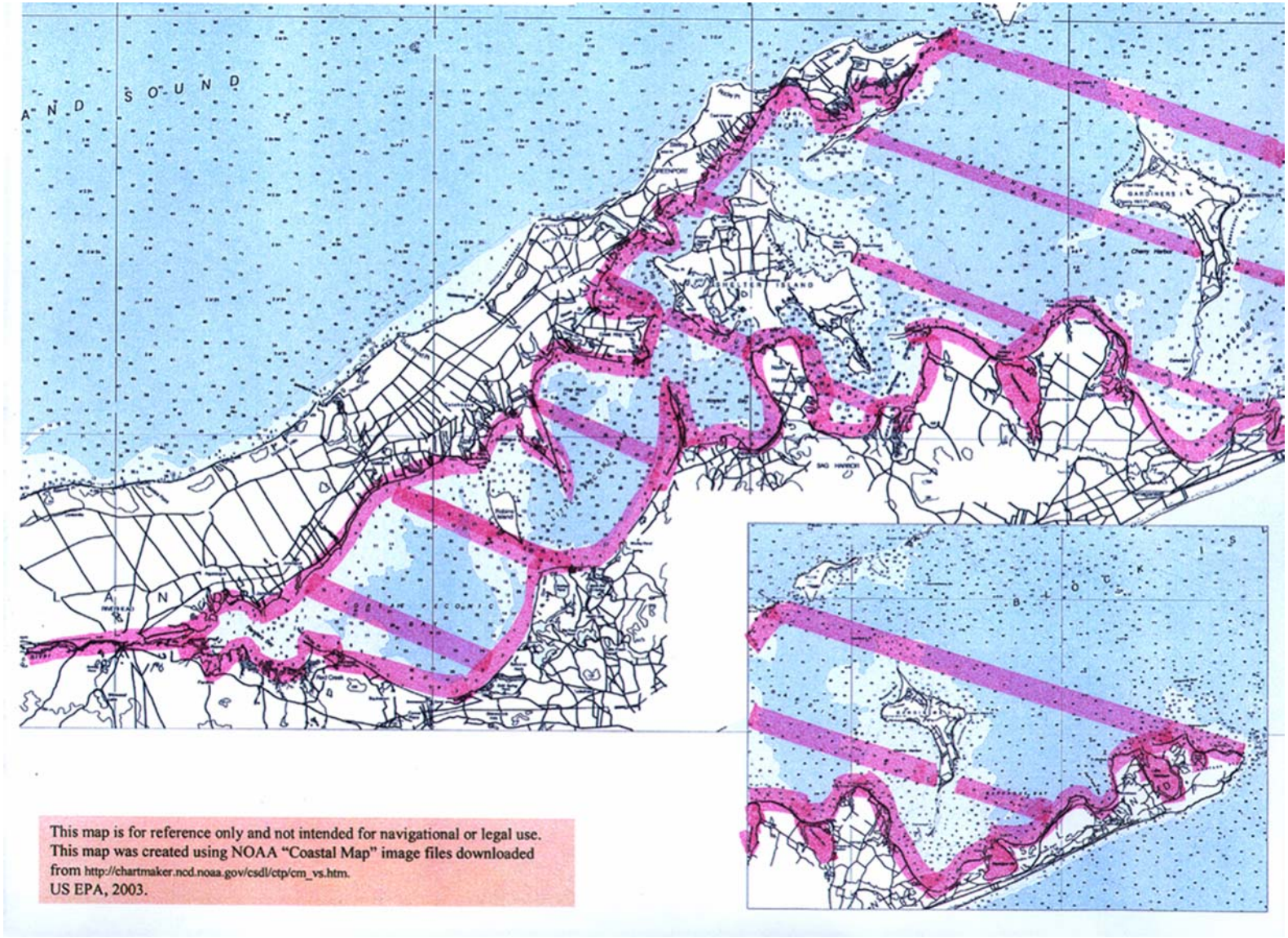


Figure B-4. Peconic Estuary, NY (6/10/2002)

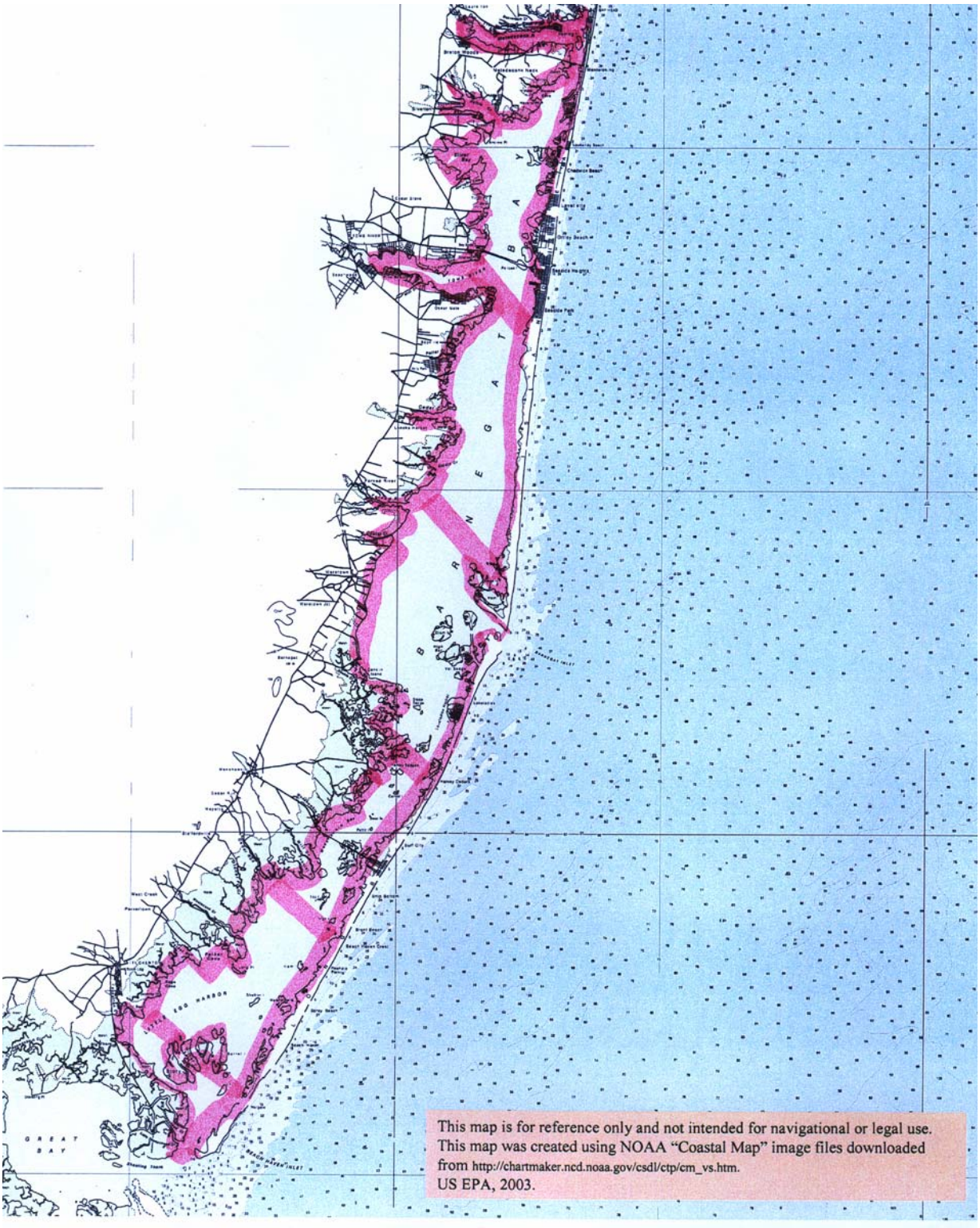


Figure B-5. Barnegat Bay, NJ (6/12/2003)

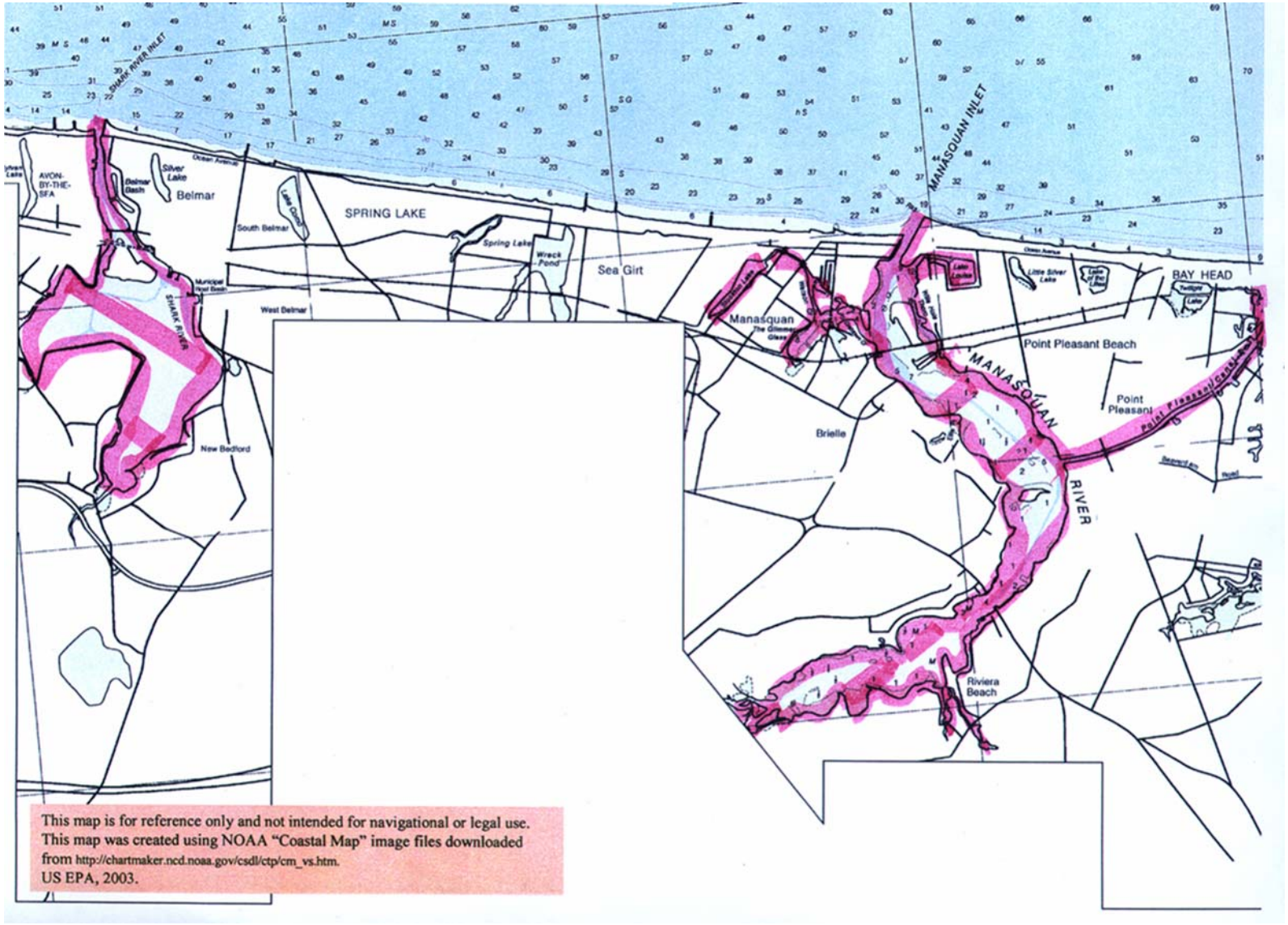


Figure B-6. Shark River/Manasquan River, NJ (3/12/1998)

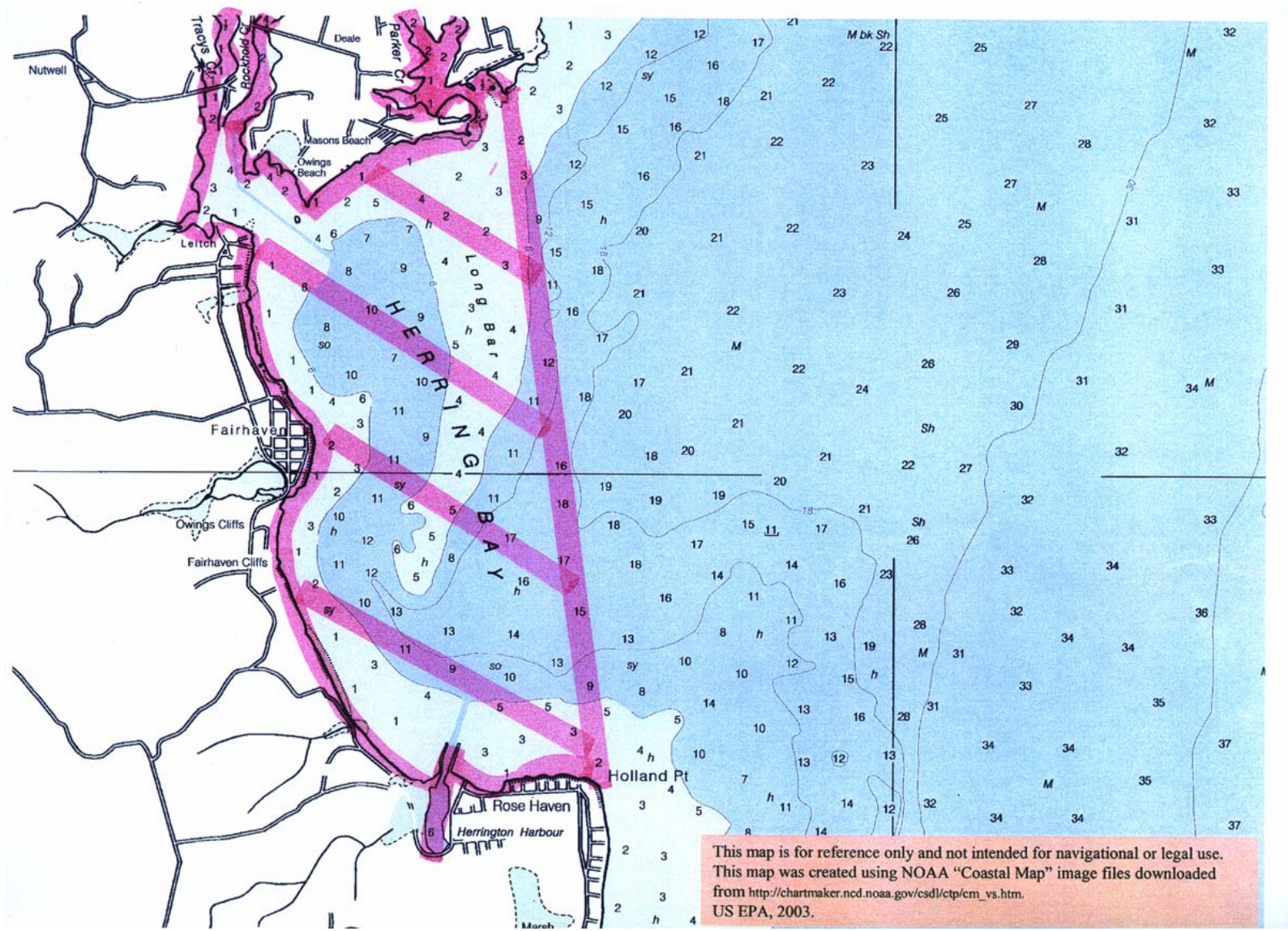


Figure B-7. Northern Coastal Bays, MD (1/10/2002)

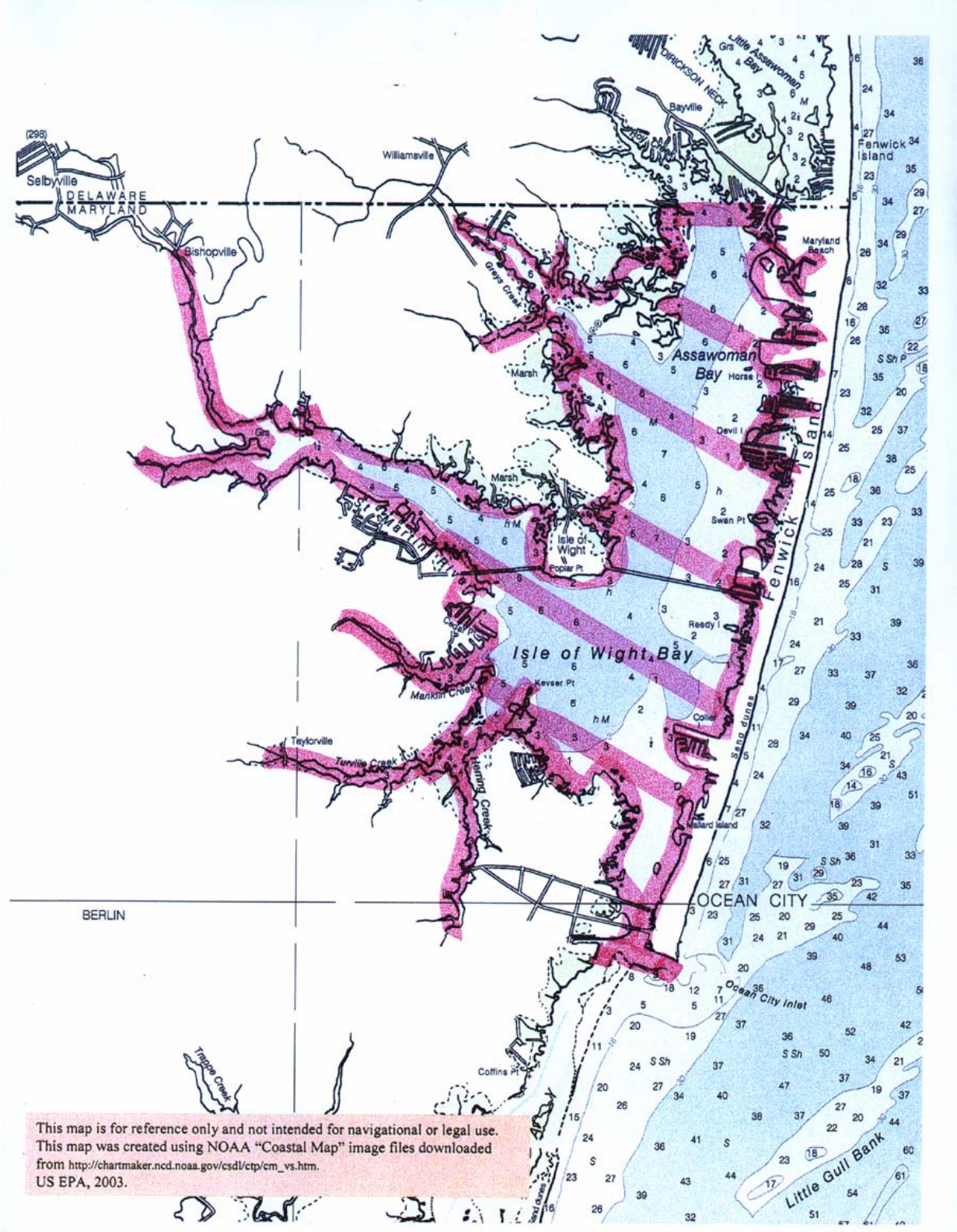


Figure B-8. Northern Coastal Bays, MD (1/10/2002)

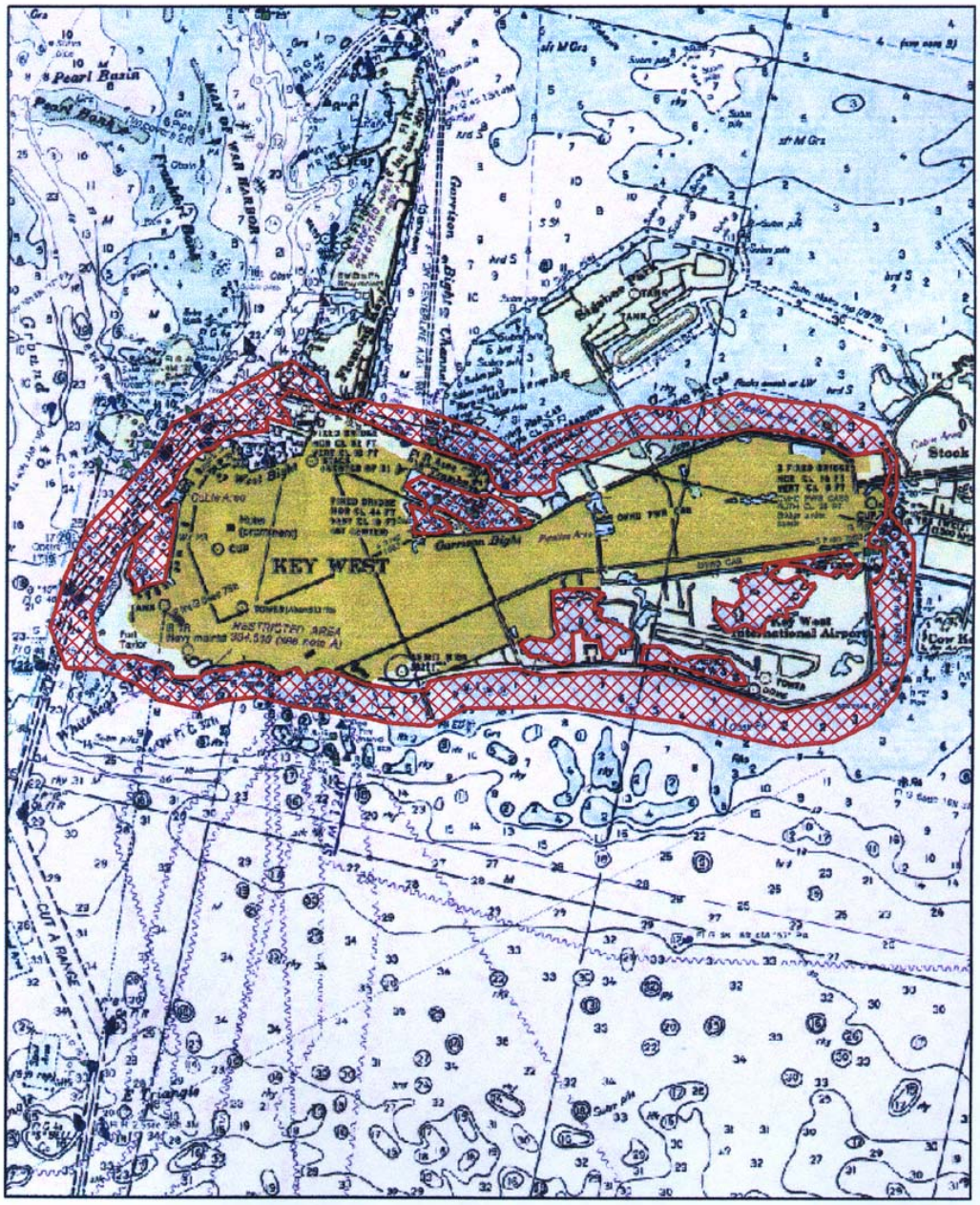


Figure B-9. City of Key West waters, FL (8/25/1999)

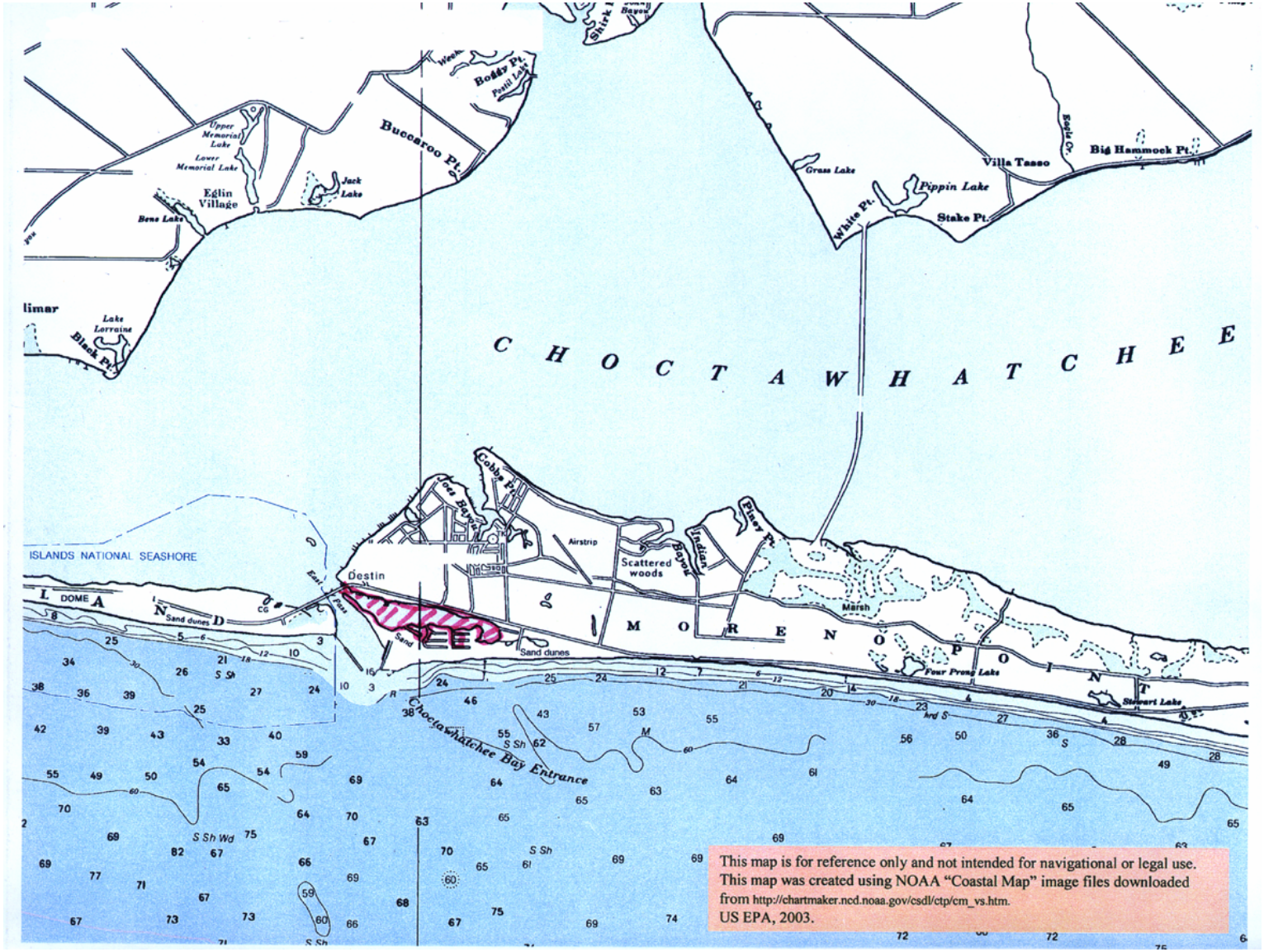


Figure B-10. Destin Harbor, FL (1/21/1998)

Figure B-11. Michigan and Wisconsin (just marinas located on Lake Michigan) (3/22/1976)

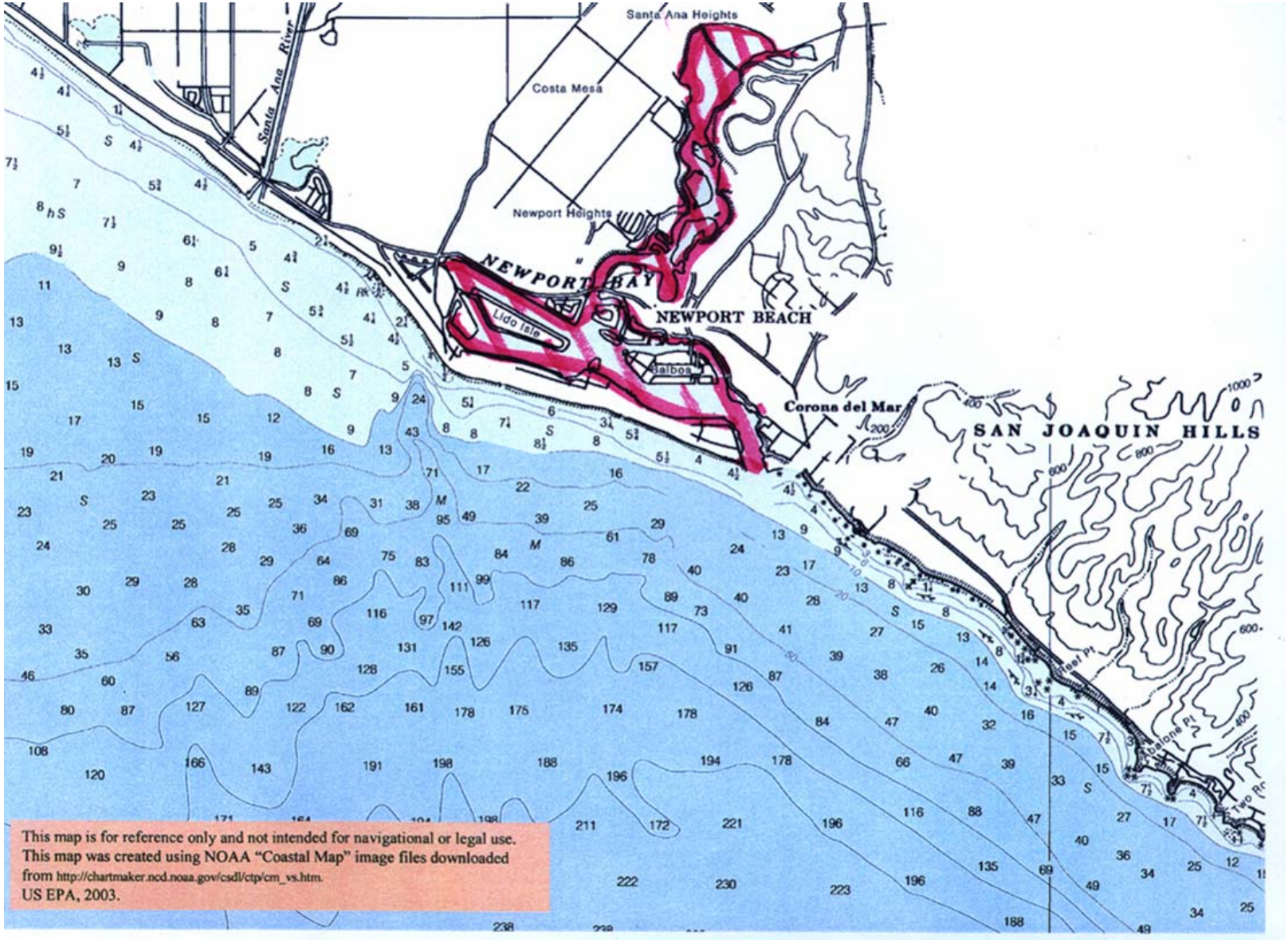


Figure B-12. Newport Bay/Sunset Bay, CA (1/15/1976)

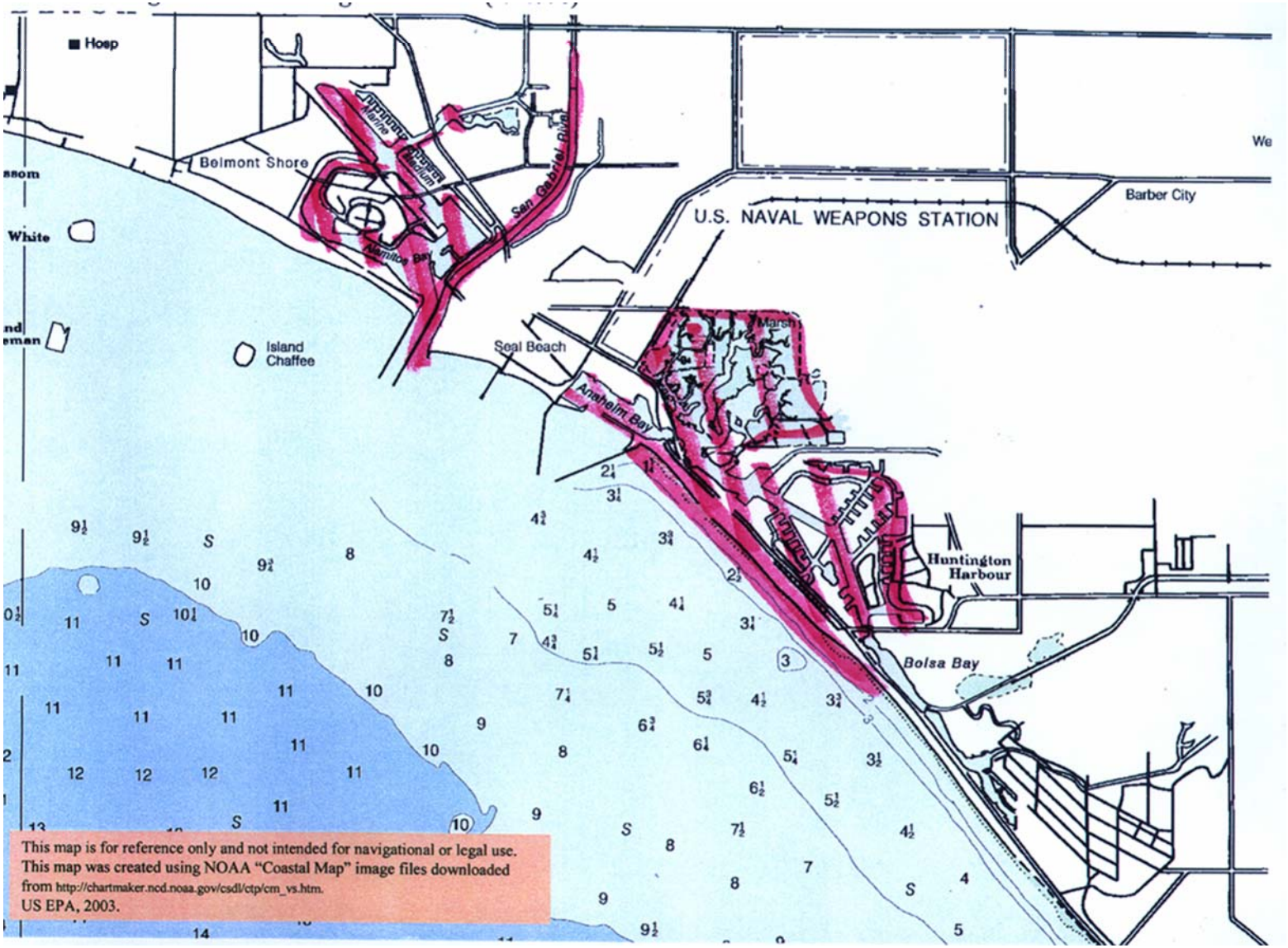


Figure B-13. Huntington Harbor, CA (1/15/1976)

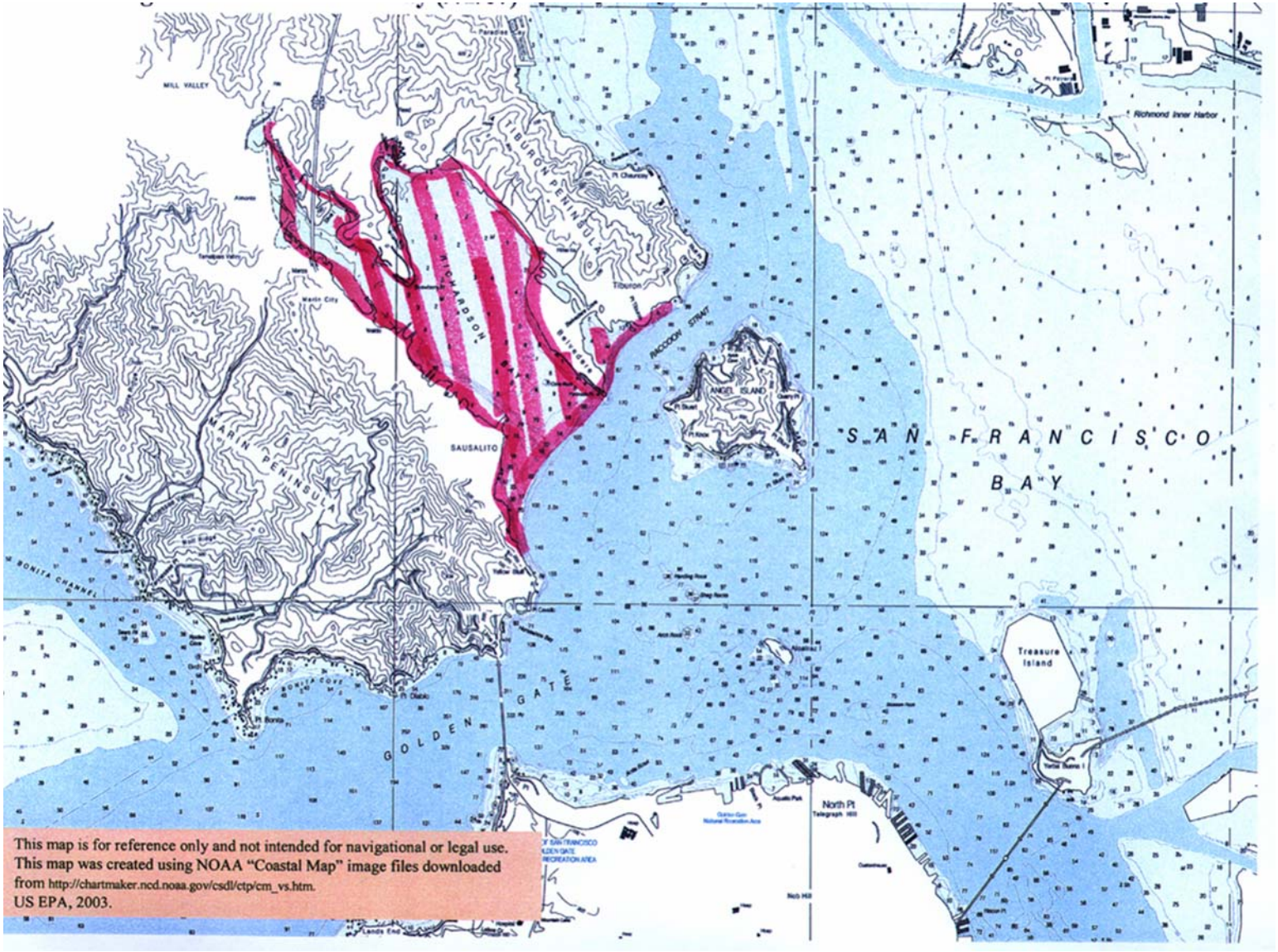


Figure B-14. Richardson Bay, CA (9/2/1987)

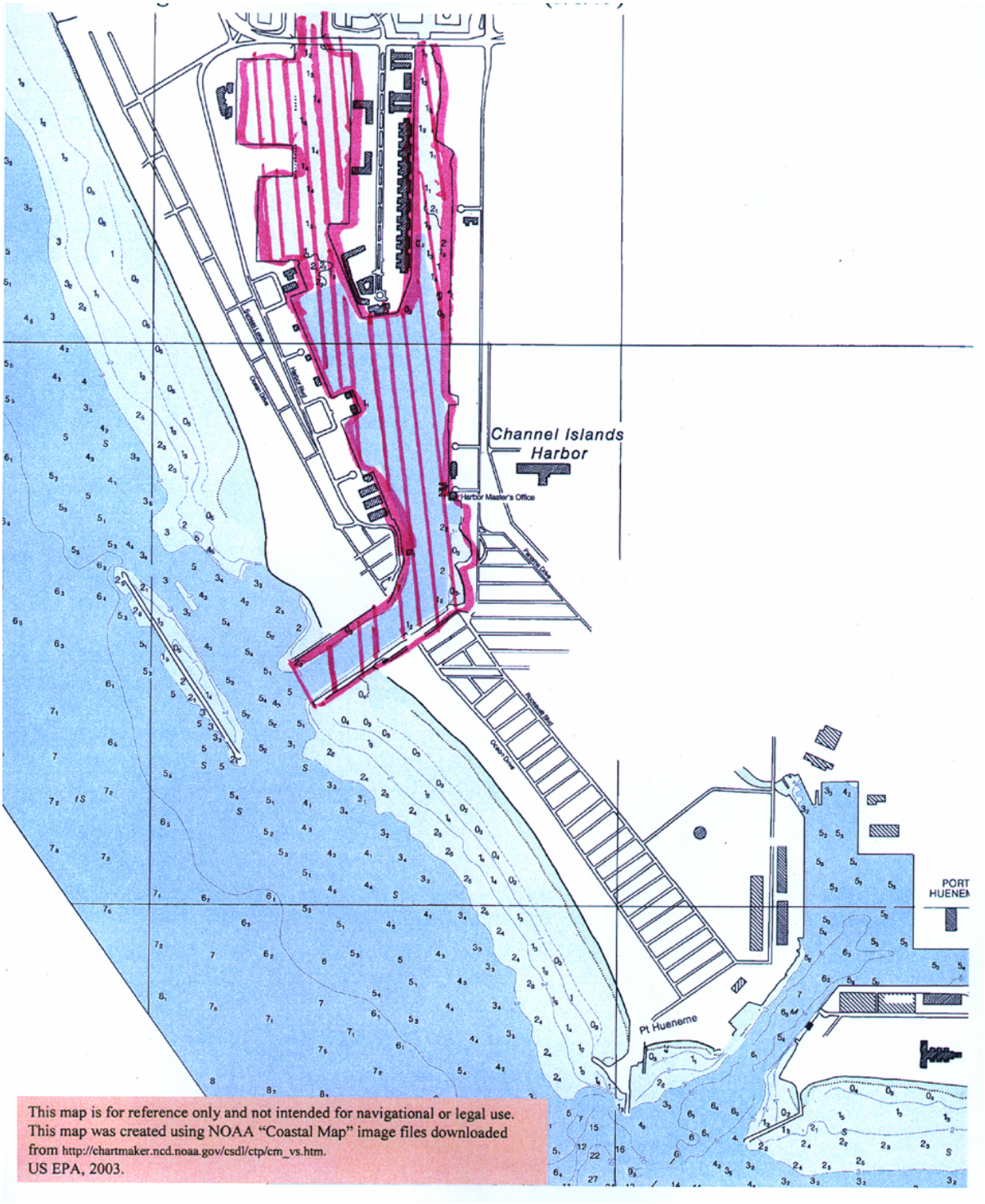


Figure B-15. Channel Islands Harbor, CA (5/8/1979)

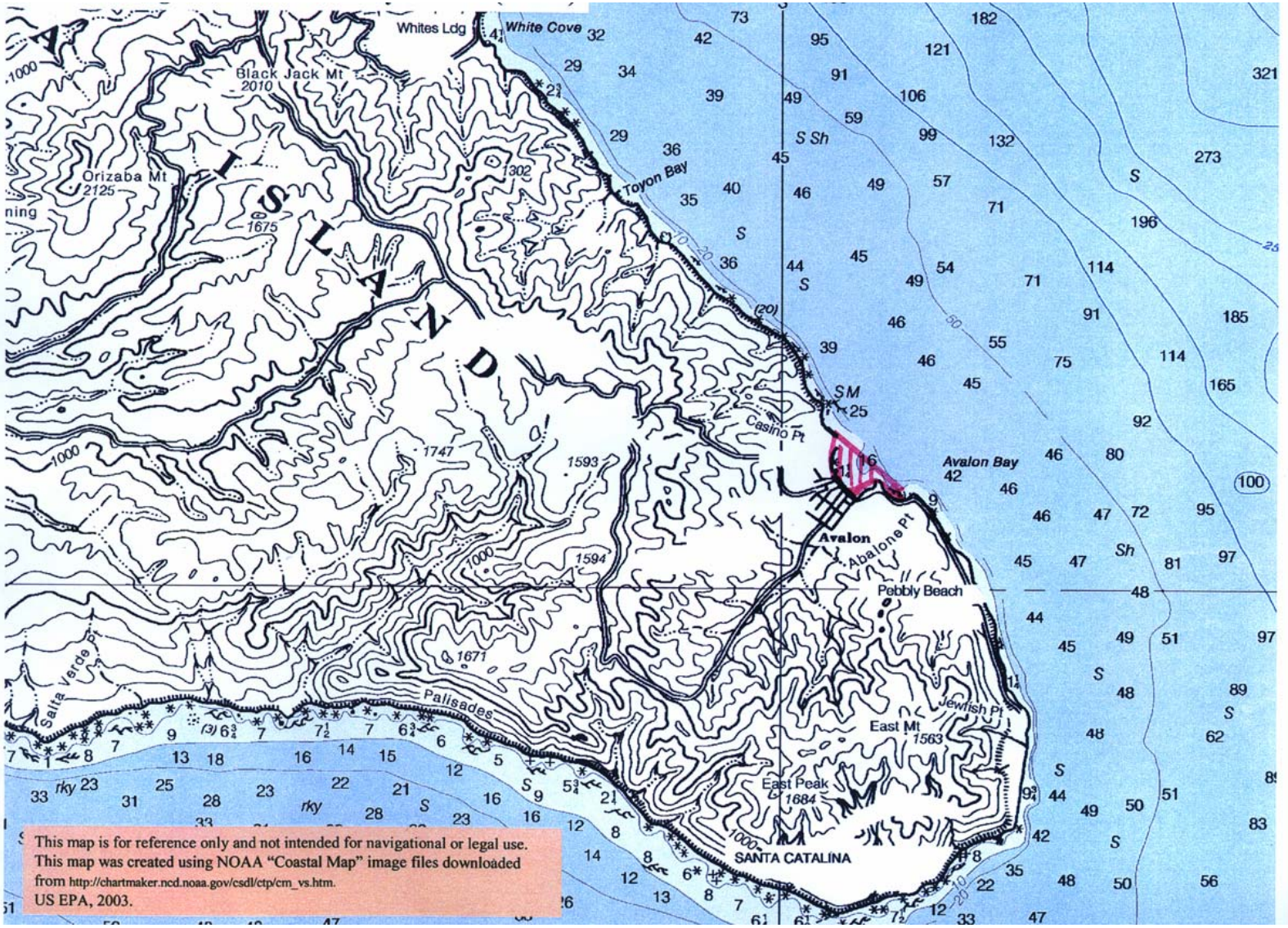


Figure B-16. Avalon Bay Harbor, CA (5/8/1979)

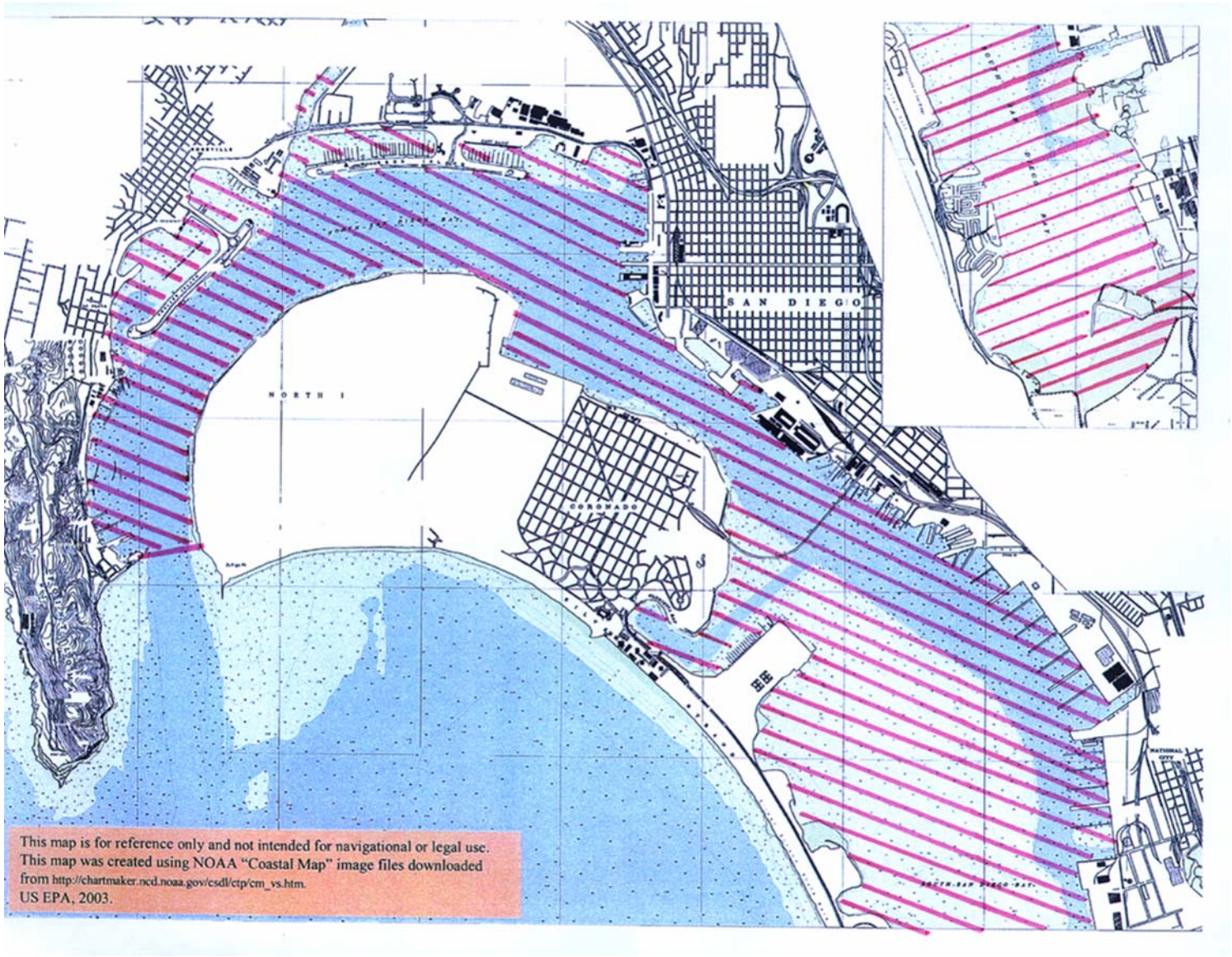


Figure B-17. San Diego Bay, CA (8/13/1976)

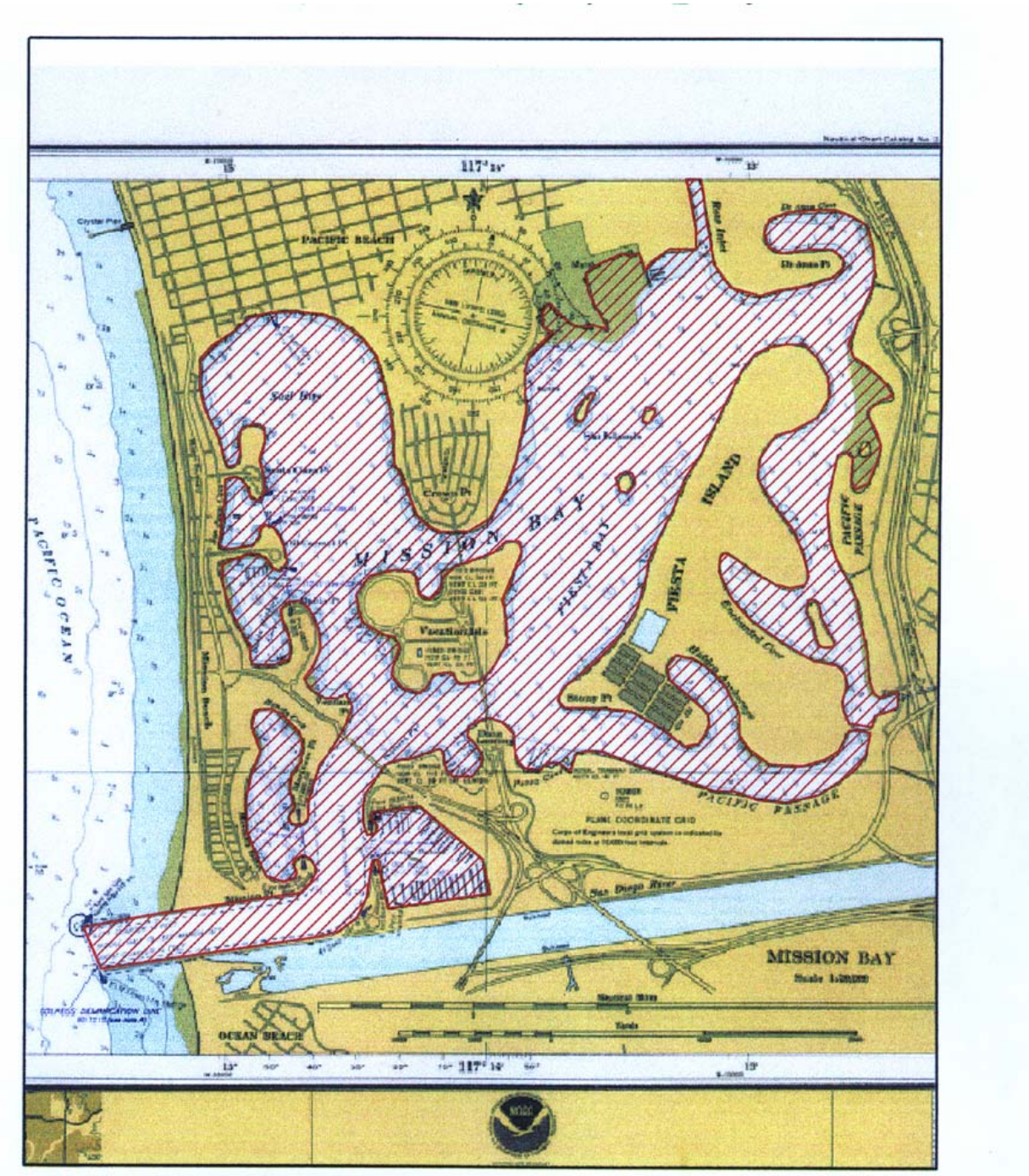
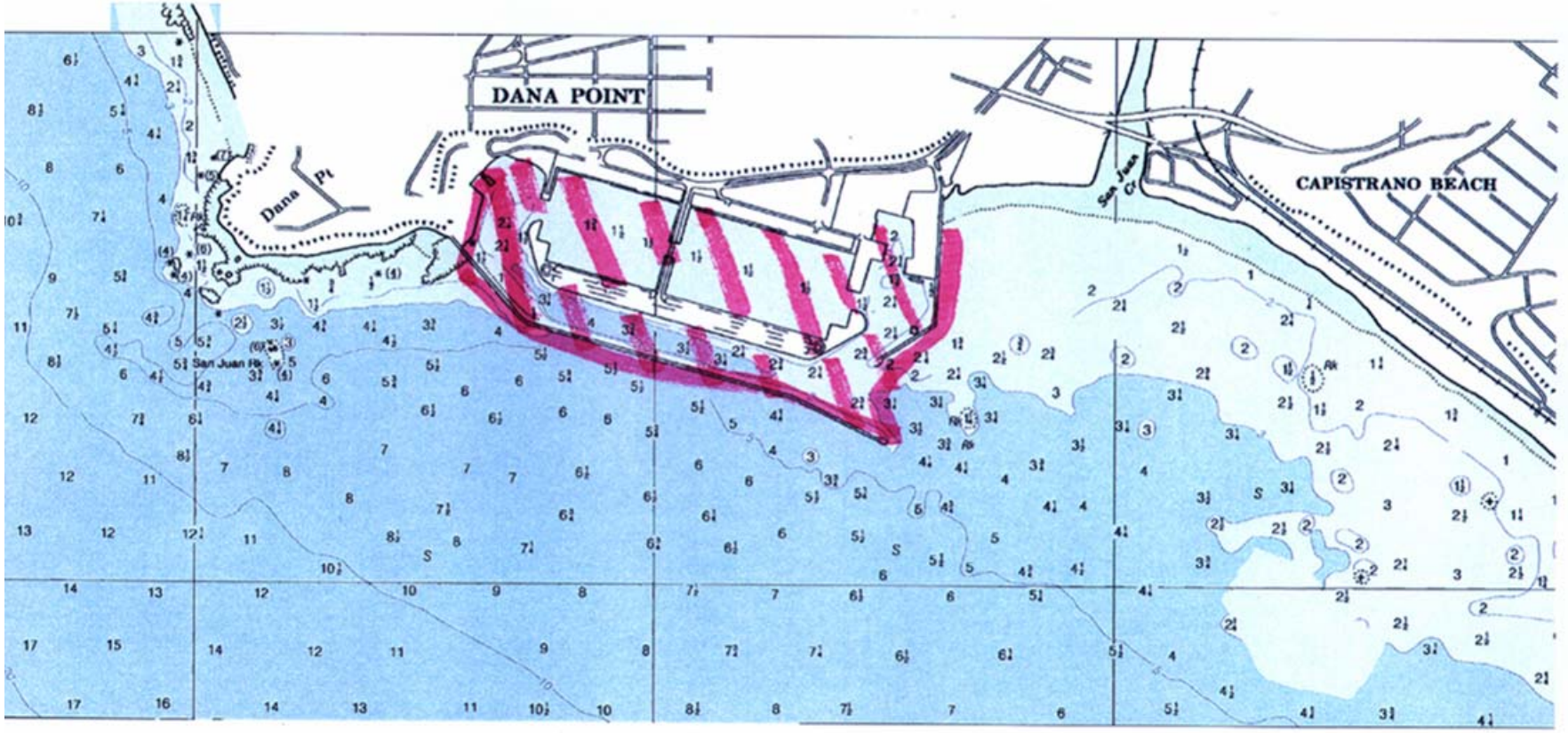


Figure B-18. Mission Bay, CA (8/13/1976)



This map is for reference only and not intended for navigational or legal use.
This map was created using NOAA "Coastal Map" image files downloaded
from http://chartmaker.ncd.noaa.gov/csdl/ctp/cm_vs.htm.
US EPA, 2003.

Figure B-19. Dana Point Harbor, CA (8/13/79)

Federal and state agencies are doing their part!

The Clean Water Act (CWA) of 1972 was enacted to protect and restore our natural aquatic resources. Section 312 of the CWA mandates the use of marine sanitation devices (MSDs) on all vessels with installed toilets.

There are three type of MSDs. Type I and Type II MSDs (for vessels less than 65 feet and those equal to or greater than 65 feet, respectively) disinfect and treat sewage to reduce bacteria and solids. Treated sewage from Type I and Type II MSDs may be discharged at any location except within designated no-discharge zones (NDZs). Type III MSDs are holding tanks that provide minimal sewage treatment and can be installed on vessels of any size. **It is illegal to discharge the contents of Type III MSDs in any U.S. territorial waters (within 3 nautical miles of shore).** Type III MSDs may be emptied only at designated onshore pumpout and dump facilities or beyond 3 nautical miles from shore.

With the approval of EPA, states may designate a portion or all of their waters as NDZs, making all vessel sewage discharges illegal. States often establish NDZs if they can demonstrate to EPA that safe and adequate pumpout and dump facilities are available.

NDZ designations are also issued as EPA regulations following state applications to EPA for NDZs:

- if prohibiting vessel sewage discharge is needed to protect environmentally sensitive areas such as shellfish beds, coral reefs, or fish spawning areas.

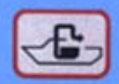
OR

- if the water body is a drinking water source.

To initiate the NDZ process, an interested party, group, or local government can discuss its concerns with the state agency that addresses vessel sewage discharges.

Please do your part!

- Know the law (www.epa.gov.owow/oceans/vessel_sewage/.
- Know what type of marine sanitation device (MSD) is installed on your boat.
- Use and maintain MSDs properly.
- Use pumpout facilities. Look for the pumpout symbol.



- Do not discharge waste from any type of MSD in a designated no-discharge zone (NDZ).
- Report vessel sewage discharge violations to the local Coast Guard.
- Encourage marina owners and operators to provide clean and safe on shore restrooms and pumpout facilities.
- Support your local estuary program (www.epa.gov/owow/estuaries/nep.html).

Did you know that there is a National Estuary Program that assists in addressing the impact of sewage on the aquatic environment?

The National Estuary Program (NEP), established in 1987 under the Clean Water Act, is a collection of 28 community-based partnerships that take responsibility for managing their estuaries. The NEPs have played a significant role in establishing NDZs, increasing awareness about clean boating, and establishing pumpout and dump facilities. For example:

- San Francisco Estuary Program assisted in the designation of Richardson Bay as an NDZ.
- Puget Sound Estuary Program led the development of public and private partnerships to improve the availability of pumpout stations and educate boat owners.

For additional information, contact EPA's Oceans and Coastal Protection Division at (202) 260-1952 or visit our home page at www.epa.gov/owow/oceans.

United States Environmental Protection Agency
EPA 842-F-00-002
April 2001
Office of Water (4504F)

EPA Using Your Head To Help Protect Our Aquatic Resources

You can help protect these precious natural resources

Find out how!

Have you ever considered the impact of one boater's untreated sewage?

Our coastal resources are a national treasure, providing recreation, income, and beauty. We all know that the health of our coastal waters is constantly threatened by pollution from industry, agriculture, and urbanization.

Did you know that the amount of bacterial pollution (fecal coliforms) from one weekend boater's discharge of untreated sewage is equal to the amount from the treated sewage of 10,000 people during the same time period?

In high-traffic areas, impacts from vessels discharging sewage increase.

Pathogens found in untreated sewage can cause extreme illness and even death when ingested by humans.

Untreated sewage discharge from vessels can suffocate animals and plants living in the aquatic environment. Delicate coral reef communities and shellfish beds are particularly sensitive to untreated sewage.

Improper discharge can cause illness and loss of income to others!

More than 33,000 square miles (24 million acres) of U.S. coastal and estuarine waters are classified as shellfish (clam, mussel, and oyster) growing waters. Annual commercial harvests yield about 77 million pounds of shellfish, worth an estimated $200 million.

Shellfish often accumulate contaminants from the environment. Eating contaminated shellfish, especially when raw or partially cooked, poses considerable health risk to humans.

Fewer shellfish bed closures result in safer and more abundant harvests for consumers.

Since the early 1920s the U.S. Public Health Service has been monitoring the nation's shellfish harvest for bacterial contamination. Today the harvest of shellfish is restricted or prohibited in approximately 30 percent of all shellfish growing waters because of poor water quality. Untreated sewage discharge from boats accounts for about 13 percent of those restrictions.

Improper discharge can also destroy the most beautiful resources on earth!

Coral reefs are one of the most spectacular and diverse ecosystems on earth. U.S. coral reef communities can be found in the Florida Keys, the southern Atlantic, the Gulf of Mexico, the Caribbean, and the western Pacific.

Coral reef tourism provides significant income to Florida, Hawaii, and the U.S. Virgin Isands. Home to more than 1 million species, coral reefs also support valuable commercial and recreational fisheries.

Vessel sewage discharges increase bioerosion of coral reefs, making them more susceptible to collapse.

Coral reefs protect nearby coastal areas. They reduce shoreline erosion and provide protection from storms by acting as natural storm surge barriers. They are also believed to be important untapped sources of medicines. Coral reefs are extremely sensitive to sewage discharge and often act as indicators that the ocean waters in which they live are polluted. Unlike shellfish beds, however, **once they are gone, they are gone forever.**

Sadly, it is estimated that 10 percent of all coral reefs worldwide have been damaged beyond repair, and another 30 percent are in critical condition and likely to die within 10 to 20 years. Impacts from sewage play a role in the decline of coral reefs.

Keep Our Waters Clean - Use Pumpouts

An interviewer will be at this marina on:

Day:_____ Date: _____ Time: _____

to survey you about the proper handling of boat sanitary waste in the aquatic environment.